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We claim:

- 1. A low-noise current reference circuitry, comprising:
- 5 a reference voltage source configured to generate a reference voltage;
  - a current source configured to provide a low-noise output current in response to a control signal; and
  - a controller configured to provide the control signal based at least in part on the relative magnitudes of the reference voltage and a voltage derived from the output current.
  - 2. A low-noise voltage reference circuitry, comprising:
    - a reference voltage source configured to generate a reference voltage;
    - a voltage source configured to provide a low-noise output voltage in response to a control signal; and
    - a controller configured to provide the control signal based at least in part on the relative magnitudes of the output voltage and the reference voltage.
  - 3. A radio-frequency (RF) apparatus, comprising:
    - a first circuit partition, comprising receiver analog circuitry configured to produce a
      digital receive signal from an analog radio-frequency signal; and
      a second circuit partition, comprising receiver digital circuitry configured to accept the

digital receive signal, wherein the first and second circuit partitions are partitioned

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so that interference effects between the first circuit partition and the second circuit partition tend to be reduced.